AMENDMENTS TO THE CLAIMS

1. (currently amended) A method of maintaining capacity of a network comprising:

defining future times at which a capacity of the network is evaluated;

determining a total capacity of the network (TNC) at each of the future times;

determining a total demand of users (TUD) for the network at each of the future times;

determining a predicted utilization (PU) of the network at each of the future times as a function of the total demand of users (TUD) and the total capacity of the network (TNC);

defining [[an]] a maximum acceptable utilization and a minimum acceptable utilization of the network at each of the future times;

comparing the predicted utilization (PU) of the network to at least one of the maximum and minimum acceptable utilization of the network at each of the future times; and

determining in response to the comparing, for each future time, a change in total network capacity (DCNC) to be applied to the network in order to increase or decrease the total capacity of the network.

2. (cancelled)

3. (original) The method of claim 1 further comprising applying the determined change in network capacity (DCNC) to the network.

4. (original) The method of claim 1 further comprising:

determining at each of the future times a lead time for adding product for applying the determined change in network capacity (DCNC) to the network; and

in advance of each future time based on the lead time determined with respect to each particular future time,

initiating efforts to obtain product for applying the determined change in network capacity (DCNC).

5. (original) The method of claim 4 wherein the lead time is a function of an installation time for installing said product and an advance purchase time for obtaining said product.

6. (original) The method of claim 1 wherein determining a total capacity of the network (TNC) at each of the future times is a function of determining a present capacity of the network (PNC) and identifying a planned change in network capacity (PCNC) to be applied the network between a present time and each of the future times.

7. (original) The method of claim 1 wherein determining a change in network capacity (DCNC) is a function of one or more of the following: a current utilization (CU) of the network, a growth trend of a utilization of the network, or a cost measure of a capacity to be added to the network.

8. (original) The method of claim 7 wherein said current utilization (CU) of the network is indicative of a high percent usage of a present capacity of the network (PNC) for a particular percentage of time.

9. (original) The method of claim 7 wherein the growth trend is based on a regression of data representative of a past growth of the utilization of the network.

10. (original) The method of claim 1 wherein determining a total demand of users (TUD) for the network at each of the future times is a function of determining a present demand of users (PUD) for the network and determining a change in demand of users (CUD) for the network between a present time and each of the future times.

11. (original) The method of claim 10 wherein determining an anticipated change in demand of users (CUD) for the network comprises determining a demand requirement for a roll-out of an application operating via the network.

12. (original) The method of claim 1 wherein determining a predicted utilization (PU) of the network at each of the future times comprises dividing the total demand of users (TUD) for the network by the total capacity of the network (TNC) at each of the future times.

13. (original) The method of claim 1 wherein the acceptable utilization of the network is a function of a response time of an application operating via the network.

14. (original) The method of claim 13 wherein the response time of the application is a function of one or more of the following: a distance between a client and a server of the application wherein said client and server are coupled to the network, a connection speed of the client to the network, or a utilization of the network during a period of time at which the client accesses the application.

15. (original) The method of claim 1 further comprising planning a budget for applying the determined change in network capacity (DCNC) to the network and determining a cost measure of the determined change in network capacity (DCNC).

16. (original) One or more computer-readable media having computer-executable instructions for performing the method of claim 1.

17. (currently amended) A system to maintain capacity of a network, said system comprising a processor configured to execute computer-executable instructions to:

define future times at which a capacity of the network is evaluated;

determine a total capacity of the network (TNC) at each of the future times;

determine a total demand of users (TUD) for the network at each of the future times;

determine a predicted utilization (PU) of the network at each of the future times as a function of the total demand of users (TUD) and the total capacity of the network (TNC);

define [[an]] a maximum acceptable utilization and minimum acceptable utilization of the network at each of the future times;

compare the predicted utilization (PU) of the network to at least one of the maximum and minimum acceptable utilization of the network at each of the future times; and

determine, for each future time, a change in total network capacity (DCNC) to be applied to the network in order to increase or decrease the total capacity of the network.

18. (cancelled)

19. (original) The system of claim 17 further comprising computer-executable instructions to apply the determined change in network capacity (DCNC) to the network.

20. (original) The system of claim 17 further comprising computer-executable instructions to:

determine at each of the future times a lead time for adding product for applying the determined change in network capacity (DCNC) to the network; and

in advance of each future time based on the lead time determined with respect to each particular future time, initiate efforts to obtain product for applying the determined change in network capacity (DCNC).

21. (original) The system of claim 20 wherein the lead time is a function of an installation time for installing said product and an advance purchase time for obtaining said product.

22. (original) The system of claim 17 wherein said computer-executable instructions to determine a total capacity of the network (TNC) at each of the future times comprises computer-executable instructions to determine a present capacity of the network (PNC) and to identify a planned change in network capacity (PCNC) to be applied to the network between a present time and each of the future times.

23. (original) The system of claim 17 wherein said computer-executable instructions to determine a change in network capacity (DCNC) comprises computer-executable instructions to determine one or more of the following: a current utilization (CU) of the network, a growth trend of a utilization of the network, or a cost measure of a capacity to be added to the network.

24. (original) The system of claim 23 wherein said current utilization (CU) of the network is indicative of a high percent usage of a present capacity of the network (PNC) for a particular percentage of time.

25. (original) The system of claim 23 wherein the growth trend is based on a regression of data representative of a past growth of the utilization of the network.

26. (original) The system of claim 17 wherein said computer-executable instructions to determine a total demand of users (TUD) for the network at each of the future times comprises computer-executable instructions to determine a present demand of users (PUD) for the network and to determine an anticipated change in demand of users (CUD) for the network between a present time and each of the future times.

27. (original) The system of claim 26 wherein said computer-executable instructions to determine an anticipated change in demand of users (CUD) for the network comprises computer-executable instructions to determine a demand requirement for a roll-out of an application operating via the network.

28. (original) The system of claim 17 wherein said computer-executable instructions to determine a predicted utilization (PU) of the network at each of the future times comprises computer-executable instructions to divide the total demand of users (TUD) for the network by the total capacity of the network (TNC) at each of the future times.

29. (original) The system of claim 17 wherein the acceptable utilization of the network is a function of a response time of an application operating via the network.

30. (original) The system of claim 29 wherein the response time of the application is a function of one or more of the following: a distance between a client and a server of the application wherein said client and server are coupled to the network, a connection speed of the client to the network, or a utilization of the network during a period of time at which the client accesses the application.

31. (original) The system of claim 30 further comprising computer-executable instructions to plan a budget for applying the determined change in network capacity (DCNC) to the network and to determine a cost measure of the determined change in network capacity (DCNC).

32. (currently amended) A computer-readable medium having computer-executable instructions to perform a method to maintain capacity of a network, the method comprising:

defining future times at which a capacity of the network is evaluated;

determining a total capacity of the network (TNC) at each of the future times;

determining a total demand of users (TUD) for the network at each of the future times;

determining a predicted utilization (PU) of the network at each of the future times as a function of the total demand of users (TUD) and the total capacity of the network (TNC);

defining [[an]] a maximum acceptable utilization and a minimum acceptable utilization of the network at each of the future times;

comparing the predicted utilization (PU) of the network to at least one of the maximum and minimum acceptable utilization of the network at each of the future times; [[and]]

determining in response to the comparing, for each future time, a change in total network capacity (DCNC) to be applied to the network in order to increase or decrease the total capacity of the network; and

determining at each of the future times a lead time for adding product for applying the determined change in network capacity (DCNC) to the network.

33. (cancelled)

34. (currently amended) The computer-readable medium of claim 32 wherein the method further comprises[[:]]

~~determining at each of the future times a lead time for adding product for applying the determined change in network capacity (DCNC) to the network; and~~

in advance of each future time based on the lead time determined with respect to each particular future time, initiating efforts to obtain product for applying the determined change in network capacity (DCNC).

35. (original) The computer-readable medium of claim 34 wherein the lead time is a function of an installation time for

installing said product and an advance purchase time for obtaining said product.

36. (original) The computer-readable medium of claim 32 wherein determining a total capacity of the network (TNC) at each of the future times is a function of determining a present capacity of the network (PNC) and identifying a planned change in network capacity (PCNC) to be applied the network between a present time and each of the future times.

37. (original) The computer-readable medium of claim 32 wherein determining a change in network capacity (DCNC) is a function of one or more of the following: a current utilization (CU) of the network, a growth trend of a utilization of the network, or a cost measure of a capacity to be added to the network.

38. (original) The computer-readable medium of claim 32 wherein determining a total demand of users (TUD) for the network at each of the future times is a function of determining a present demand of users (PUD) for the network and determining a change in demand of users (CUD) for the network between a present time and each of the future times.

39. (original) The computer-readable medium of claim 32 wherein determining a predicted utilization (PU) of the network at each of the future times comprises dividing the total demand of users (TUD) for the network by the total capacity of the network (TNC) at each of the future times.

40. (original) The computer-readable medium of claim 32 wherein the acceptable utilization of the network is a function of a response time of an application operating via the network.

41. (original) The computer-readable medium of claim 32 wherein the method further comprises planning a budget for

applying the determined change in network capacity (DCNC) to the network and determining a cost measure of the determined change in network capacity (DCNC).